

# Notice of Allowability

Application No.

10/007,516

Examiner

Krishnan S Menon

Applicant(s)

POPE ET AL.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment of 6/29/04.
2. ☒ The allowed claim(s) is/are 1-4, 7-16, 19-35, 38, 45-47, 49-58 and 61; RENUMBERED 1-46.
3. ☒ The drawings filed on 05 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 8/15/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

***Allowable Subject Matter***

Pending Claims 1-4,7-16,19-35,38,45-47,49-58 and 61 are allowed.

The following is an examiner's statement of reasons for allowance:

The claims indicated as allowable are based on a combination of limitations (1) a ring having an annular anchor is attached to an end of the housing and a flange cap is attached to the ring, with the ring separating the flange cap from the housing, and (2) the annular anchor having rounded ridges on the upper and lower surfaces of the anchor to prevent delamination of the potting material (3) radial channels on the annular anchor for air escape during potting. The combinations of these limitations are not taught by, or obvious to one of ordinary skill in the art from, the references, as explained below.

The closest prior arts to the instant claims are Antoni (586), JP-777, Eguchi (601), Lacy (619) and Elgas (202). Antoni teaches a hollow fiber filter device having an anchor ring to lock in the potting material to prevent delamination as in the claims. However, unlike in the claims, the flange cap is attached directly to the housing (not separated by the ring) with the anchor ring attached to the flange cap. JP-777 teaches a hollow fiber filter device with a housing, an anchor ring and a flange cap, with the anchor ring attached to the housing and the flange cap attached to the anchor ring, so that the end of the housing is separated from the flange cap by the ring as in the claims. The anchor rings of JP-777 and Antoni do not have the limitations of the rounded ridges formed on the upper and lower surfaces and the radial channels for air vents. The anchor ring of JP-777 is meant to provide structural and dimensional stability of the filter

ends, at the same time facilitating easy insertion of the fiber bundle by providing an angular surface (21) to the ring (described as fiber insertion tool). There is no suggestion to combine the features of JP-777 with the features of Antoni in either of the references, and it would not be obvious to one of ordinary skill in the art to make such a combination. Eguchi reference teaches the ridges and the radial channels for the purpose of locking in the potting material and prevent delamination, with air vent during potting. However, JP-777 cannot be modified with Eguchi because such a modification would prevent the function of the part 21 as a fiber-bundle insertion tool in JP-777. Lacy teaches only structures suitable for welding, Elgas teaches surface treatment for better adhesion of the potting material, and both these references do not overcome the deficiencies of Antoni, JP-777 and Eguchi.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan Menon  
Patent Examiner

  
W. L. WALKER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700